BLACK&DECKER®

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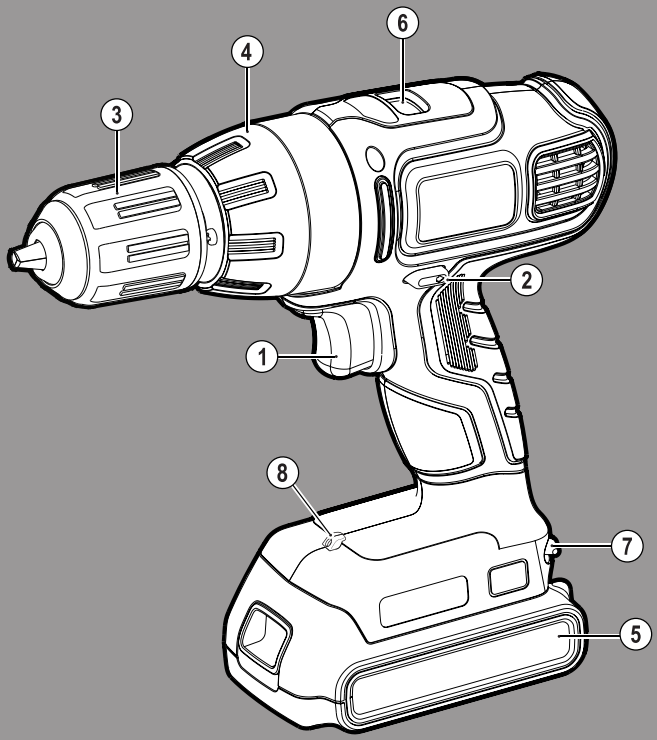

ASL146
ASL148
ASL186
ASL188

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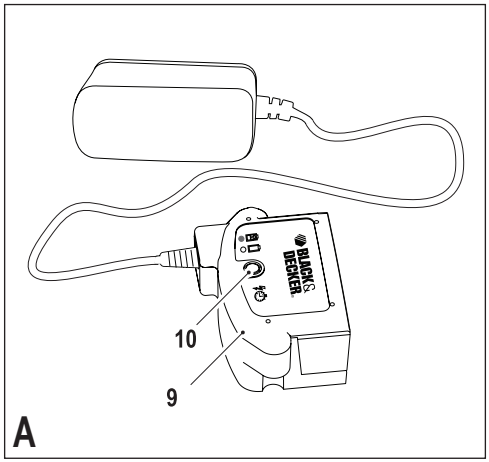
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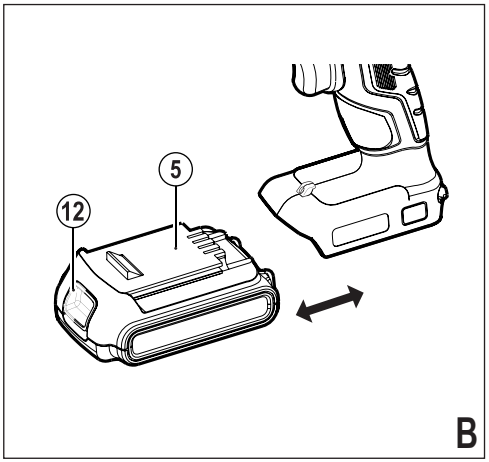
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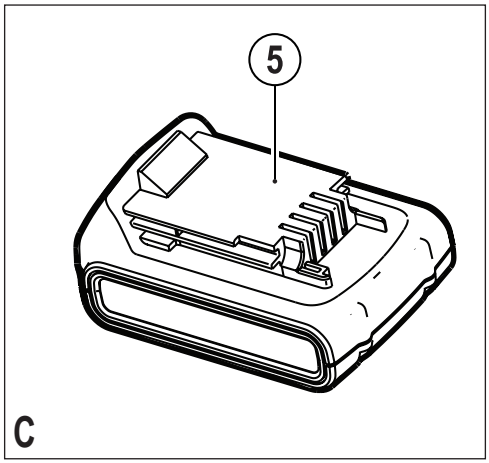
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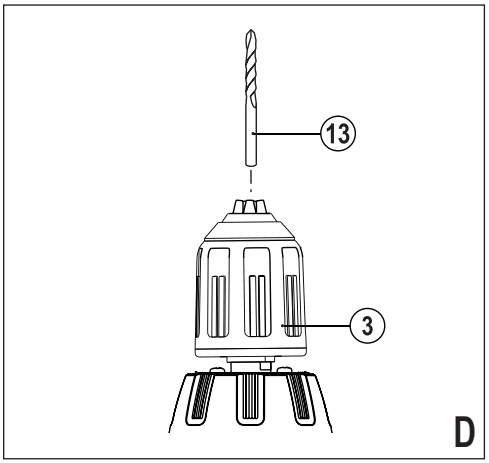
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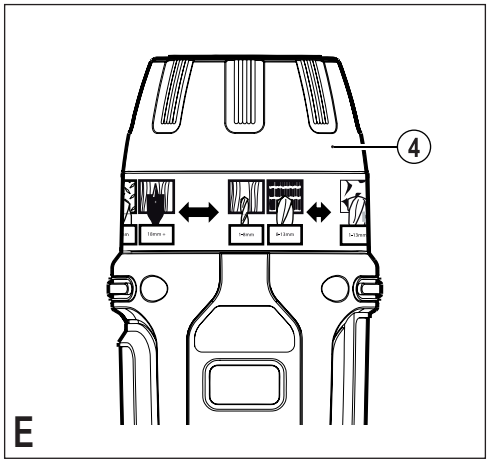
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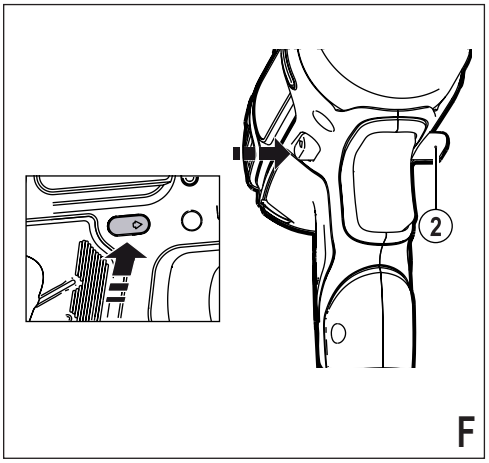
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Intended use

Your Black & Decker drill/screwdriver has been designed for screwdriving applications and for drilling in wood, metal, plastics and masonry (ASL148 & ASL188 only). This tool is intended for consumer use only.

Safety instructions

General power tool safety warnings

Warning! Read all safety warnings and all instructions. Failure to follow the warnings and instructions listed below may result in electric shock, fire and/or serious injury.

Save all warnings and instructions for future reference. The term "power tool" in all of the warnings listed below refers to your mains operated (corded) power tool or battery operated (cordless) power tool.

1. **Work area safety**

a. **Keep work area clean and well lit.** Cluttered or dark areas invite accidents.

b. **Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.** Power tools create sparks which may ignite the dust or fumes.

c. **Keep children and bystanders away while operating a power tool.** Distractions can cause you to lose control.

2. **Electrical safety**

a. **Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools.** Unmodified plugs and matching outlets will reduce risk of electric shock.

b. **Avoid body contact with earthed or grounded surfaces such as pipes, radiators, ranges and refrigerators.** There is an increased risk of electric shock if your body is earthed or grounded.

c. **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.

d. **Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts.** Damaged or entangled cords increase the risk of electric shock.

e. **When operating a power tool outdoors, use an extension cord suitable for outdoor use.** Use of a cord suitable for outdoor use reduces the risk of electric shock.

f. **If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply.** Use of an RCD reduces the risk of electric shock.

3. **Personal safety**

a. **Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication.** A moment of inattention while operating power tools may result in serious personal injury.

b. **Use personal protective equipment. Always wear eye protection.** Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.

c. **Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool.** Carrying power tools with your finger on the switch or energising power tools that have the switch on invites accidents.

d. **Remove any adjusting key or wrench before turning the power tool on.** A wrench or a key left attached to a rotating part of the power tool may result in personal injury.

e. **Do not overreach. Keep proper footing and balance at all times.** This enables better control of the power tool in unexpected situations.

f. **Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts.** Loose clothes, jewellery or long hair can be caught in moving parts.

g. **If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.** Use of dust collection can reduce dust-related hazards.

4. **Power tool use and care**

a. **Do not force the power tool. Use the correct power tool for your application.** The correct power tool will do the job better and safer at the rate for which it was designed.

b. **Do not use the power tool if the switch does not turn it on and off.** Any power tool that cannot be controlled with the switch is dangerous and must be repaired.

c. **Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools.** Such preventive safety measures reduce the risk of starting the power tool accidentally.

d. **Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool.** Power tools are dangerous in the hands of untrained users.
e. **Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tools operation. If damaged, have the power tool repaired before use.** Many accidents are caused by poorly maintained power tools.
f. **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
g. **Use the power tool, accessories and tool bits etc. in accordance with these instructions, taking into account the working conditions and the work to be performed.** Use of the power tool for operations different from those intended could result in a hazardous situation.

5. **Battery tool use and care**
a. **Recharge only with the charger specified by the manufacturer.** A charger that is suitable for one type of battery pack may create a risk of fire when used with another battery pack.
b. **Use power tools only with specifically designated battery packs.** Use of any other battery packs may create a risk of injury and fire.
c. **When battery pack is not in use, keep it away from other metal objects, like paper clips, coins, keys, nails, screws, or other small metal objects, that can make a connection from one terminal to another.** Shorting the battery terminals together may cause burns or a fire.
d. **Under abusive conditions, liquid may be ejected from the battery; avoid contact. If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help.** Liquid ejected from the battery may cause irritation or burns.

6. **Service**
a. **Have your power tool serviced by a qualified repair person using only identical replacement parts.** This will ensure that the safety of the power tool is maintained.

Additional power tool safety warnings

Warning! Additional safety warnings for drills and impact drills

- **Wear ear protectors with impact drills.** Exposure to noise can cause hearing loss.
- **Use auxiliary handles supplied with the tool.** Loss of control can cause personal injury.
- **Hold power tool by insulated gripping surfaces when performing an operation where the cutting accessory may contact hidden wiring.** Cutting accessory contacting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.
- **Use clamps or another practical way to secure and support the workpiece to a stable platform.** Holding the work by hand or against your body leaves it unstable and may lead to loss of control.
- Before drilling into walls, floors or ceilings, check for the location of wiring and pipes.
- Avoid touching the tip of a drill bit just after drilling, as it may be hot.
- This tool is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.
- The intended use is described in this instruction manual. The use of any accessory or attachment or performance of any operation with this tool other than those recommended in this instruction manual may present a risk of personal injury and/or damage to property.

Safety of others

- This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
- Children should be supervised to ensure that they do not play with the appliance.

Residual risks.

Additional residual risks may arise when using the tool which may not be included in the enclosed safety warnings. These risks can arise from misuse, prolonged use etc.
Even with the application of the relevant safety regulations and the implementation of safety devices, certain residual risks can not be avoided. These include:

- Injuries caused by touching any rotating/moving parts.
- Injuries caused when changing any parts, blades or accessories.
- Injuries caused by prolonged use of a tool. When using any tool for prolonged periods ensure you take regular breaks.
- Impairment of hearing.

- Health hazards caused by breathing dust developed when using your tool (example:- working with wood, especially oak, beech and MDF.)

Vibration

The declared vibration emission values stated in the technical data and the declaration of conformity have been measured in accordance with a standard test method provided by EN 60745 and may be used for comparing one tool with another. The declared vibration emission value may also be used in a preliminary assessment of exposure.

Warning! The vibration emission value during actual use of the power tool can differ from the declared value depending on the ways in which the tool is used. The vibration level may increase above the level stated.

When assessing vibration exposure to determine safety measures required by 2002/44/EC to protect persons regularly using power tools in employment, an estimation of vibration exposure should consider, the actual conditions of use and the way the tool is used, including taking account of all parts of the operating cycle such as the times when the tool is switched off and when it is running idle in addition to the trigger time.

Labels on tool

The following symbols are shown on the tool:

Warning! To reduce the risk of injury, the user must read the instruction manual.

Additional safety instructions for batteries and chargers

Batteries

- Never attempt to open for any reason.
- Do not expose the battery to water.
- Do not store in locations where the temperature may exceed 30 °C.
- Charge only at ambient temperatures between 4 °C and 40 °C.
- Charge only using the charger provided with the tool.
- When disposing of batteries, follow the instructions given in the section "Protecting the environment".

Do not attempt to charge damaged batteries.

Chargers

- Use your Black & Decker charger only to charge the battery in the tool with which it was supplied. Other batteries could burst, causing personal injury and damage.
- Never attempt to charge non-rechargeable batteries.
- Have defective cords replaced immediately.
- Do not expose the charger to water.
- Do not open the charger.
- Do not probe the charger.

The charger is intended for indoor use only.

Read the instruction manual before use.

Electrical safety

Your charger is double insulated; therefore no earth wire is required. Always check that the mains voltage corresponds to the voltage on the rating plate. Never attempt to replace the charger unit with a regular mains plug.

- If the supply cord is damaged, it must be replaced by the manufacturer or an authorised Black & Decker Service Centre in order to avoid a hazard.

Features

This tool includes some or all of the following features.

1. Variable speed switch
2. Forward/reverse slider
3. Chuck
4. Torque adjustment collar
5. Battery
6. Gear indicator
7. Bit holder
8. LED Light

Fig. A

9. Charger
10. Charging indicator

Assembly

Warning! Before assembly, remove the battery from the tool.

Fitting and removing the battery (fig. B)

- To fit the battery (5), line it up with the receptacle on the tool. Slide the battery into the receptacle and push until the battery snaps into place.
- To remove the battery, push the release button (12) while at the same time pulling the battery out of the receptacle.

Fitting and removing a drill bit or screwdriver bit (fig. D)

This tool is fitted with a keyless chuck to allow for an easy exchange of bits.

- Lock the tool by setting the forward/reverse slider (2) to the centre position.
- Open the chuck by turning it (3) with one hand while holding the tool with the other.
- Insert the bit shaft (13) into the chuck.
- Firmly tighten the chuck by turning it (3) with one hand while holding the tool with the other.

Use

Warning! Let the tool work at its own pace. Do not overload.

Charging the battery (fig. A)

The battery needs to be charged before first use and whenever it fails to produce sufficient power on jobs that were easily done before. The battery may become warm while charging; this is normal and does not indicate a problem.

Warning! Do not charge the battery at ambient temperatures below 10 °C or above 40 °C. Recommended charging temperature: approx. 24 °C.

Note: The charger will not charge a battery if the cell temperature is below approximately 10 °C or above 40 °C. The battery should be left in the charger and the charger will begin to charge automatically when the cell temperature warms up or cools down.

- To charge the battery (5), insert it into the charger (9). The battery will only fit into the charger in one way. Do not force. Be sure that the battery is fully seated in the charger.
- Plug in the charger and switch on at the mains.

The charging indicator (10) will blink.

The charge is complete when the charging indicator (10) switches to continuously on. The charger and the battery can be left connected indefinitely. The LED will switch on as the charger occasionally tops up the battery charge.

- Charge discharged batteries within 1 week. Battery life will be greatly diminished if stored in a discharged state.

Leaving the battery in the charger

The charger and battery pack can be left connected with the LED glowing indefinitely. The charger will keep the battery pack fresh and fully charged.

Selecting the direction of rotation (fig. F)

For drilling and for tightening screws, use forward (clockwise) rotation. For loosening screws or removing a jammed drill bit, use reverse (counterclockwise) rotation.

- To select forward rotation, push the forward/reverse slider (2) to the left.
- To select reverse rotation, push the forward/reverse slider to the right.
- To lock the tool, set the forward/reverse slider into the centre position.

Selecting the torque (fig. E)

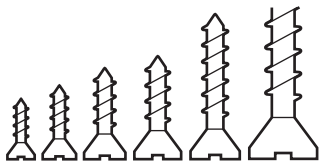
This tool is fitted with a unique collar to set the torque for various screwdriving and drilling applications. Large screws and hard workpiece materials require a higher torque setting than small screws and soft workpiece materials. The collar has a wide range of settings represented by symbols to suit your application. For the definition of the symbol refer to the listing below.

- For drilling in wood, metal and plastics, set the torque adjustment collar (4) to the symbol corresponding to the appropriate drilling application.
- For screwdriving, set the collar to the desired setting. If you do not yet know the appropriate setting, proceed as follows:
  - Set the torque adjustment collar (4) to the lowest torque setting.
  - Tighten the first screw.
  - If the clutch ratchets before the desired result is achieved, increase the collar setting and continue tightening the screw. Repeat until you reach the correct setting. Use this setting for the remaining screws.

Torque/speed range

Non-working position used only to switch between low speed, high speed and high torque.

Screwdriving applications



Torque range: low torque for small screws and high torque for large screws.

High toque drilling applications

Large drill bits in steel

Large spade bits in wood

High speed drilling applications

Small diameter drill bits in wood, plastic and metal.

Large diameter drill bits in wood, plastic, metal.

Small spade bits in wood

Hammer drilling applications

Hammer drilling in concrete.
(ASL148 & ASL188 only)

Drilling/screwdriving

- Select forward or reverse rotation using the forward/ reverse slider (2).
- To switch the tool on, press the switch (1). The tool speed depends on how far you press the switch.
- To switch the tool off, release the switch.

LED light

The LED light (8) is activated automatically when the trigger is depressed. The LED will illuminate when the trigger is partially depressed, before the unit begins running. The LED will also illuminate when the trigger is depressed and the forward/ reverse slider (2) is in the locked off position (central position).

Hints for optimum use

Drilling

- Always apply a light pressure in a straight line with the drill bit.
- Just before the drill tip breaks through the other side of the workpiece, decrease pressure on the tool.
- Use a block of wood to back up workpieces that may splinter.
- Use spade bits when drilling large diameter holes in wood.
- Use HSS drill bits when drilling in metal.
- Use masonry bits when drilling in soft masonry.
- Use a lubricant when drilling metals other than cast iron and brass.
- Make an indentation using a centre punch at the centre of the hole to be drilled in order to improve accuracy.

Screwdriving

- Always use the correct type and size of screwdriver bit.
- If screws are difficult to tighten, try applying a small amount of washing liquid or soap as a lubricant.
- Always hold the tool and screwdriver bit in a straight line with the screw.

Maintenance

Your Black & Decker tool has been designed to operate over a long period of time with a minimum of maintenance. Continuous satisfactory operation depends upon proper tool care and regular cleaning.

Your charger does not require any maintenance apart from regular cleaning.

Warning! Before performing any maintenance on the tool, remove the battery from the tool. Unplug the charger before cleaning it.

- Regularly clean the ventilation slots in your tool and charger using a soft brush or dry cloth.
- Regularly clean the motor housing using a damp cloth. Do not use any abrasive or solvent-based cleaner.
- Regularly open the chuck and tap it to remove any dust from the interior.

Protecting the environment

Separate collection. This product must not be disposed of with normal household waste.

Should you find one day that your Black & Decker product needs replacement, or if it is of no further use to you, do not dispose of it with household waste. Make this product available for separate collection.

Separate collection of used products and packaging allows materials to be recycled and used again.
Re-use of recycled materials helps prevent environmental pollution and reduces the demand for raw materials.

Local regulations may provide for separate collection of electrical products from the household, at municipal waste sites or by the retailer when you purchase a new product.

Black & Decker provides a facility for the collection and recycling of Black & Decker products once they have reached the end of their working life. To take advantage of this service please return your product to any authorised repair agent who will collect them on our behalf.

You can check the location of your nearest authorised repair agent by contacting your local Black & Decker office at the address indicated in this manual. Alternatively, a list of authorised Black & Decker repair agents and full details of our after-sales service and contacts are available on the Internet at: **www.2helpU.com**

Batteries

Run the battery down completely, then remove it from the tool.

- NiCd, NiMH and Li-Ion batteries are recyclable. Take them to any authorised repair agent or a local recycling station.

Technical data

		ASL148 (H1)	ASL188 (H1)
Voltage	V_{DC}	14.4	18
No-load speed	Min^{-1}	0-400/ 0-1350	0-400/ 0-1400
Max. torque	Nm	16/33	17/34
Chuck capacity	mm	10	10
Max Drilling capacity			
Steel/wood/ masonry	mm	10/30/10	10/35/10

		ASL146 (H1)	ASL186 (H1)
Voltage	V_{DC}	14.4	18
No-load speed	Min^{-1}	0-400/ 0-1350	0-400/ 0-1300
Max. torque	Nm	16/33	18/35
Chuck capacity	mm	10	10
Max Drilling capacity			
Steel/wood	mm	10/30	10/38

Charger		905902** (typ. 1)
Input Voltage	V_{AC}	100 - 240
Output Voltage	V_{DC}	8 - 20
Current	mA	400
Approx. charge time	h	3 - 5

Battery		BL1114	BL1314	BL1514
Voltage	V_{DC}	14.4	14.4	14.4
Capacity	Ah	1.1	1.3	1.5
Type		Li-Ion	Li-Ion	Li-Ion

Battery		BL1118	BL1318	BL1518
Voltage	V_{DC}	18	18	18
Capacity	Ah	1.1	1.3	1.5
Type		Li-Ion	Li-Ion	Li-Ion

Level of sound pressure according to EN 60745:
Sound pressure (L_{pA}) 87.5 dB(A), uncertainty (K) 3 dB(A)
Sound power (L_{WA}) 98.5 dB(A), uncertainty (K) 3 dB(A)

Vibration total values (triax vector sum) according to EN 60745:
Impact drilling into concrete ($a_{h,ID}$) 9.96 m/s², uncertainty (K) 1.5 m/s²
Drilling into metal ($a_{h,D}$) < 2.5 m/s², uncertainty (K) 1.5 m/s²
Screwdriving without impact ($a_{h,I}$) < 2.5 m/s², uncertainty (K) 1.5 m/s²

EC declaration of conformity

MACHINERY DIRECTIVE

CE

ASL146, ASL148, ASL186, ASL188

Black & Decker declares that these products described under "technical data" are in compliance with:
2006/42/EC, EN 60745-1, EN 60745-2-1

These products also comply with Directive 2004/108/EC and 2011/65/EU. For more information, please contact Black & Decker at the following address or refer to the back of the manual.

The undersigned is responsible for compilation of the technical file and makes this declaration on behalf of Black & Decker.

K. Hewitt

Kevin Hewitt
Vice-President Global Engineering
Black & Decker Europe, 210 Bath Road, Slough,
Berkshire, SL1 3YD
United Kingdom
22/01/2013

Guarantee

Black & Decker is confident of the quality of its products and offers an outstanding guarantee. This guarantee statement is in addition to and in no way prejudices your statutory rights. The guarantee is valid within the territories of the Member States of the European Union and the European Free Trade Area.

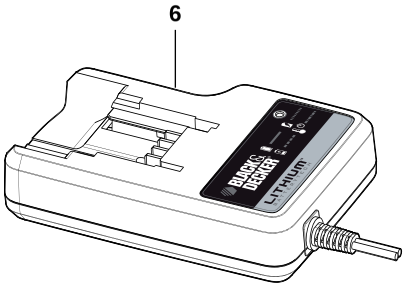
If a Black & Decker product becomes defective due to faulty materials, workmanship or lack of conformity, within 24 months from the date of purchase, Black & Decker guarantees to replace defective parts, repair products subjected to fair wear and tear or replace such products to ensure minimum inconvenience to the customer unless:

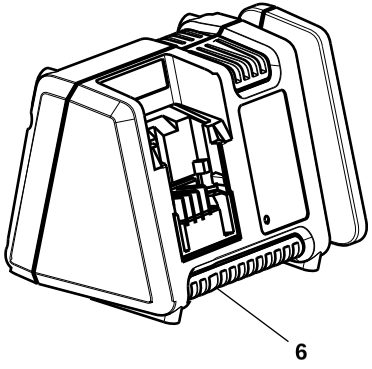
- The product has been used for trade, professional or hire purposes;
- The product has been subjected to misuse or neglect;
- The product has sustained damage through foreign objects, substances or accidents;
- Repairs have been attempted by persons other than authorised repair agents or Black & Decker service staff.

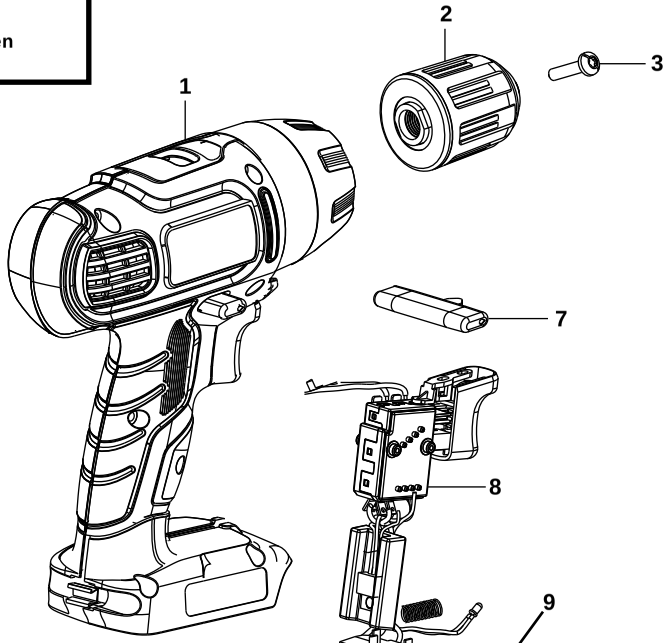
To claim on the guarantee, you will need to submit proof of purchase to the seller or an authorised repair agent. You can check the location of your nearest authorised repair agent by contacting your local Black & Decker office at the address indicated in this manual. Alternatively, a list of authorised Black & Decker repair agents and full details of our after-sales service and contacts are available on the Internet at: **www.2helpU.com**

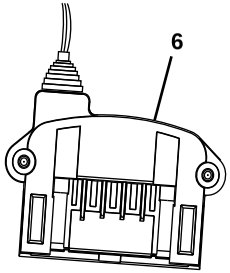
Please visit our website **www.blackanddecker.co.uk** to register your new Black & Decker product and to be kept up to date on new products and special offers. Further information on the Black & Decker brand and our range of products is available at **www.blackanddecker.co.uk**

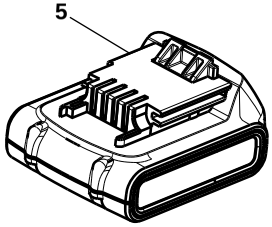
Partial support - Only parts shown available
Nur die aufgefuerten teile sind lieferbar
Reparation partielle - Seules les pieces indiquees sont disponibles
Supporto parziale - Sono disponibili soltanto le parti evidenziate
Solo estan disponibles las peizas listadas
So se encontram disponiveis as pecas listadas
Gedeeltelijke ondersteuning - alleen de getoonde onderdelen zijn beschikbaar











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ENGLISH

Do not forget to register your product!

www.blackanddecker.co.uk/productregistration

Register your product online at **www.blackanddecker.co.uk/productregistration** or send your name, surname and product code to Black & Decker in your country.

Australia

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